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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,338	08/01/2003	Brett Franklin Thompson	50303/THD/C1022	3179
23363	7590	07/11/2006	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			BELT, SAMUEL E	
PO BOX 7068			ART UNIT	
PASADENA, CA 91109-7068			PAPER NUMBER	

3746

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/632,338

Applicant(s)

THOMPSON ET AL.

Examiner

Samuel E. Belt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 is/are allowed.
- 6) ☒ Claim(s) 8-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/01/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-15, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshikawa (US Patent 3398687).

Yoshikawa discloses a pump comprising a casing having two casing sections (Fig.1, items 1,2) defining a casing cavity; an electrical motor (Fig.1, item 3) comprising a motor casing having two ends and a side positioned there between mounted inside the casing cavity having a motor shaft protruding from one of the ends, a seal (see Figure 1 below in 'response to arguments") mounted on the motor shaft for deterring fluids from leaking into an interior space of the motor casing, an impeller (Fig.1, item 6) mounted on an end of the motor shaft adjacent the seal; and a flow channel (Fig. 1, item 4, see response to arguments) formed between an inlet nozzle and an outlet nozzle inside the casing cavity adapted to permit fluids drawn from the inlet nozzle to flow over at least a portion of the side of the electrical motor to cool the electrical motor before exiting the outlet nozzle; An inlet nozzle (Fig.1, items 1a) positioned on one of the tapered ends and an outlet nozzle (Fig.1, items 2a) positioned on the other tapered end, one of the two casing sections comprising a terminal nozzle (Fig.1, item 7a) for

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terminating a power cord, at least one support leg (Fig.1, item 10) located on an exterior surface of the casing for supporting the centrifugal pump, a motor electrical cover (Fig. 1, item 3) positioned over an end of the electrical motor comprising an indentation section, a casing having a football shape configuration. Since Yoshikawa has the same structure as claimed, it is inherent that Yoshikawa's device would be able to perform the recited method steps.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-9, 11-12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa (US Patent 3398687) in view of Kobayashi et al. (US Patent 5692886).

In regards to claim 8 Yoshikawa sets forth a device as described above, which is substantially analogous to the claimed invention. The Yoshikawa device differs from the claimed invention in that there is no explicit teaching of the centrifugal pumps electrical motor being mounted to the outlet casing as opposed to the inlet section casing. Kobayashi et al. teach the use of mounting the electrical motor to an outlet casing (Fig.1, items 31 & 39). Therefore it would have been obvious to one of ordinary skill in

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the art at time the invention was made to modify the Yoshikawa device by mounting the electrical motor to the outlet casing as taught by Kobayashi et al., in order to better secure the motor within the casing.

In regards to claim 13 Yoshikawa sets forth a device as described above. The Yoshikawa device differs from the claimed invention in that there is no explicit teaching of the centrifugal pump comprising a parting line sealed by fastening a plurality of fastener means and compressing a compressible seal there between. Kobayashi et al. teach the use of a plurality of fasteners (Fig. 1, item 55) to compress a seal (Fig. 1, item 56) thus creating a watertight seal between the two housings. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to modify the Yoshikawa device by, replacing the original thread style connection with the fastener and compression seal style connection as taught by Kobayashi et al., in order to protect the stator can from various external forces applied to the nozzle (col. 10, lines 24+).

Claims 10, 18-19, & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa (US Patent 3398687) in view of Hackett (US Patent 5378121).

In regards to claims 10 & 18 Yoshikawa sets forth a device as described above, which is substantially analogous to the claimed invention. The Yoshikawa device differs from the claimed invention in that there is no explicit teaching of the centrifugal pump comprising a closed impeller. Hackett teaches the use of a closed impeller (Fig. 1, item 6) to direct the flow of the fluid towards the wall of the outer housing. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to

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modify the Yoshikawa device by replacing the original impeller with the closed impeller as taught by Hackett, in order to advantageously direct the fluid flow over the motor to better cool it, therefore extending its operating life.

In regards to claim 19 Yoshikawa sets forth a device as described above. The Yoshikawa device differs from the claimed invention in that there is no explicit teaching of the centrifugal pump comprising a pump base. Hackett teaches the use of a base (Fig.1, items 60,62) to permit the pump to be secured to a surface for safer operation. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to modify the Yoshikawa device by replacing the original support leg with the base configuration as taught by Hackett, in order to allow the pump to be secured to a stationary piece so that it can safely operate.

In regards to claim 21 Yoshikawa sets forth a device as described above. The Yoshikawa device differs from the claimed invention in that there is no explicit teaching of the a pump comprising an electrical motor comprising a motor housing having a motor shaft having an opposite end wholly encased inside the motor housing positioned inside the pump casing interior cavity. Hackett teaches a motor shaft having its opposite end wholly encased inside the motor housing. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to modify the Yoshikawa device by encasing the shaft end as taught by Hackett, in order to permit better sealing of the internal motor components from the cooling fluid.

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Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa (US Patent 3398687) in view of Hamasaki et al. (US Patent 6287090).

In regards to claim 16 Yoshikawa sets forth a device as described above. The Yoshikawa device differs from the claimed invention in that there is no explicit teaching of the centrifugal pump comprising a mounting gland, which is compressed against a motor flange with an O-ring compressed there between. Hamasaki et al. teach the use of a "tongue and groove" connection which is used to provide easy assembly of an electric pump apparatus. Therefore it would have been obvious to one of ordinary skill in the art at time the invention was made to modify the Yoshikawa device by replacing the original connection between the motor and the pump housing with the "tongue and groove" connection as taught by Hamasaki et al., in order to provide an easier connection between the motor and housing, therefore making it easier to perform maintenance and or remove the motor from the pump housing.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa (US Patent 3398687).

In regards to claim 20 Yoshikawa sets forth a device as described above. The Yoshikawa device differs from the claimed invention in that there is no explicit teaching of the motor being rated for 110-volts. It would have been obvious to one of ordinary skill in the art at time the invention was made to use a 110-volt motor as this power rating is considered to be a standard power rating in North America.

***Allowable Subject Matter***

Claims 1-7 are allowed.

***Response to Amendment***

Applicant's amendments with respect to claims 8 and 21 have been considered but are moot in view of the new ground(s) of rejection.

***Response to Arguments***

Applicant's arguments filed 05/08/2006 have been fully considered but they are not persuasive.

In regard to claim 8 the applicant argues that the electrical motor of Yoshikawa does not disclose a motor electrical cover covering the end of the electrical motor opposite the shaft end and being disposed radially between the pump casing and the motor casing. Yoshikawa clearly shows a motor cover covering the end of the motor opposite the shaft end and being disposed radially between the pump casing and the motor casing as shown below.



In regard to claim 14 the applicant argues that the pump of Yoshikawa does not disclose a pump comprising a flow channel being formed interiorly of the pump casing and comprises a center flow section and two arcuate side interface sections with the center flow section being spaced radially apart from the motor casing a greater distance than the two arcuate side interface sections for channeling fluid flow through the flow channel. The circularly spaced guide vanes, which connect the motor to the housing member 1, act as flow channel sections (column 1, lines 40+) and perform the same function of applicants flow sections as claimed. The spaces between the vanes would also act as flow channels helping to better cool the motor of Yoshikawa.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel E. Belt whose telephone number is (571) 272-7820. The examiner can normally be reached on M-F, 8 - 4:30EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Thorpe can be reached on (571) 272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEB



Samuel E. Belt  
06/27/2006



ANTHONY D. STASHICK  
PRIMARY EXAMINER